

What is claimed is:

1. An inductor comprising:
a coil form having a conical portion with a tip;
5 an integrated contact disposed on the tip of the coil form; and
an inductor coil wound around the coil form and electrically coupled to the
integrated contact.

2. The inductor of claim 1 wherein the coil form comprises polyiron.

3. The inductor of claim 1 wherein the integrated contact comprises a plated
tip portion of the coil form.

4. The inductor of claim 3 wherein the plated tip portion of the coil form
15 comprises a first gold layer, a nickel layer disposed on the first gold layer, and a second
gold layer disposed on the nickel layer.

5. The inductor of claim 4 wherein the coil form comprises polyiron.

6. The inductor of claim 3 further comprising a groove in the plated portion of
20 the coil form.

7. The inductor of claim 3 wherein an end of the inductor coil is soldered to
the plated tip portion of the coil form.

8. The inductor of claim 7 wherein the inductor coil is wound not more than
one turn around the plated portion of the coil form.

9. The inductor of claim 1 wherein the inductor coil has a narrow end with an
30 inside diameter, an outside diameter of the integrated contact being essentially equal to the
inside diameter of the narrow end of the inductor coil.

10. The inductor of claim 1 wherein the integrated contact has a radius not
greater than 250 microns.

11. An inductor comprising:
a polyiron coil form having a conical portion and a plated tip portion; and
an inductor coil wound around the conical portion of the coil form wherein
an end of the inductor coil is soldered to the plated tip portion.

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12. The inductor of claim 11 wherein the plated tip portion of the coil form
comprises a gold barrier layer proximate to the polyiron coil form, a nickel layer disposed
on the gold barrier layer, and a gold layer disposed on the nickel layer.

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13. The inductor of claim 11 further comprising a groove in the plated tip
portion of the coil form, the end of the inductor coil being soldered in the groove of the
plated tip portion.

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14. The inductor of claim 11 wherein the inductor coil is wound not more than
one turn around the plated portion of the coil form.

15. The inductor of claim 11 wherein the plated tip portion has a radius not
greater than 250 microns.

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16. An inductor comprising:
a polyiron coil form having a conical portion and a plated tip portion with a
groove; and

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an inductor coil wound around the conical portion of the coil form, and end
of the inductor coil being soldered to in the groove of the plated tip portion, wherein the
inductor coil is wound not more than one turn around the plated portion of the coil form.

17. The inductor of claim 16 wherein the plated tip portion has a radius not
greater than 250 microns.